

What is claimed is:

- 1    1.     A method comprising:  
2           collecting data regarding a current association in a wireless network; and  
3           storing the data for use in future association decisions.
- 1    2.     The method of claim 1 wherein storing the data comprises storing data in  
2    memory in a network interface.
- 1    3.     The method of claim 1 wherein storing the data comprises storing data in  
2    host memory.
- 1    4.     The method of claim 1 wherein the data includes data throughput of the  
2    current association.
- 1    5.     The method of claim 1 wherein the data includes a duration of the current  
2    association.
- 1    6.     The method of claim 1 wherein the data includes a reason for disassociation  
2    of the current association.
- 1    7.     The method of claim 1 wherein the data includes a number of previous  
2    associations.
- 1    8.     The method of claim 1 wherein the method is performed at least in part by  
2    software on a host system.
- 1    9.     A method comprising:  
2           accessing association history data for at least one access point in a wireless  
3    network; and

4            selecting an access point based at least in part on the association history data.

1    10.    The method of claim 9 wherein accessing association history data comprises  
2    accessing host memory.

1    11.    The method of claim 9 wherein accessing association history data comprises  
2    accessing memory in a wireless network interface.

1    12.    The method of claim 9 wherein accessing association history data comprises  
2    accessing a duration of a last association.

1    13.    The method of claim 9 wherein accessing association history data comprises  
2    accessing a reason for disassociation.

1    14.    The method of claim 9 wherein accessing association history data comprises  
2    accessing an average throughput for past associations.

1    15.    The method of claim 9 wherein accessing association history data comprises  
2    accessing a number of previous associations.

1    16.    The method of claim 9 wherein the method is performed at least in part by  
2    software embedded in a wireless network interface.

1    17.    The method of claim 9 wherein the method is performed at least in part by  
2    software on a host system.

1    18.    A method comprising:  
2           collecting historical association data at a wireless network interface; and

3           passing the historical association data to a media access control layer  
4   running in a software driver on a host system, to allow the data to be saved using  
5   resources of the host system.

1   19.    The method of claim 18 wherein accessing association history data  
2   comprises accessing a duration of a last association.

1   20.    The method of claim 18 wherein accessing association history data  
2   comprises accessing a reason for disassociation.

1   21.    The method of claim 18 wherein accessing association history data  
2   comprises accessing an average throughput for past associations.

1   22.    An apparatus including a medium adapted to hold machine-accessible  
2   instructions that when accessed result in a machine performing:  
3           accessing association history data for at least one access point in a wireless  
4   network; and  
5           selecting an access point based at least in part on the association history data.

1   23.    The apparatus of claim 22 wherein accessing association history data  
2   comprises accessing a duration of a last association.

1   24.    The apparatus of claim 22 wherein accessing association history data  
2   comprises accessing an average throughput for past associations.

1   25.    An apparatus comprising:  
2           a radio interface to interact with a wireless network, and  
3           a processor coupled to the radio interface, wherein the processor is adapted  
4   to maintain historical association data for at least one access point, and is further

5 adapted to make association decisions based at least in part on the historical  
6 association data.

1 26. The apparatus of claim 25 wherein the processor is adapted to choose an  
2 access point that has a history of a longer association duration for past associations.

1 27. The apparatus of claim 25 wherein the processor is adapted to choose an  
2 access point that has a history of higher data throughput for past associations.

1 28. An electronic system comprising:  
2 an omni-directional antenna;  
3 a radio interface coupled to the omni-directional antenna to interact with a  
4 wireless network, and  
5 a processor coupled to the radio interface, wherein the processor is adapted  
6 to maintain historical association data for at least one access point, and is further  
7 adapted to make association decisions based at least in part on the historical  
8 association data.

1 29. The electronic system of claim 28 wherein the processor is adapted to  
2 choose an access point that has a history of a longer association duration for past  
3 associations.

1 30. The electronic system of claim 28 wherein the processor is adapted to  
2 choose an access point that has a history of higher data throughput for past  
3 associations.